**PRAGMATISING THE CURRICULUM:**

**BRINGING KNOWLEDGE BACK INTO THE CURRICULUM CONVERSATION,**

**BUT VIA PRAGMATISM**

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**Introduction: Bringing knowledge back in**

In a number of recent publications the British sociologist Michael Young has argued that there is a need to bring knowledge back into the discussion about the curriculum (for example, Young 2008; see also Young & Muller 2007; 2008; Balarin 2008). I agree with Young that the question of knowledge may indeed have disappeared from parts of curriculum theory and parts of curriculum practice. This is partly the result of a phenomenon to which I have referred as the 'learnification' of education (see Biesta 2010a). 'Learnification' refers to a fairly recent development in which the language of education has been taken over by a language of learning. As a result, the emphasis in the discussion has shifted from questions about the content and purpose of education to questions about process, for example in the now ubiquitous idea of 'learning to learn'. Discussions about knowledge have thus been side-lined in favour of discussions about skills and competences. Young and colleagues have sought to bring knowledge back into the conversation by taking recourse to social realism (see particularly Young 2008). Social realism is presented as an alternative to forms of social constructivism which, according to Young, are not only unable to account for “the idea of knowledge growth” and but also encourage “students and educational researchers to neglect the ‘realist’ traditions of social theory” (Young & Muller 2008, p. 521). Pragmatism – mainly read through the eyes of Durkheim (see Young 2008) – is one of the forms of social constructivism which, according to Young, suffers from these problems and therefore needs to be replaced or overcome (see, for example, Young 2008, p.80; p. 145).

With his critique of pragmatism Young is part of a much longer line of authors who all have suggested that pragmatism is a form of anti-realist philosophy with strong relativist tendencies and implications (for example, Horkheimer 1947). In this paper I wish to argue that rather than being anti-realist and relativistic, pragmatism actually operates *beyond* the age-old opposition of objectivism and relativism (see also Bernstein 1983). It is for this reason that I believe that pragmatism – and in particularly the pragmatism developed by John Dewey – still has important insights to offer for the discussion about knowledge and the curriculum, so that, rather than casting it aside as being part of the problem, it should actually be (re)considered as a productive way for engaging with the question of knowledge in the curriculum conversation.[[1]](#footnote-1)

**Knowledge and the curriculum**

Early on in his career the American philosopher and educationalist John Dewey stated that the problem of education lies in the co-ordination of the individual and the social factors (Dewey 1895[[2]](#footnote-2)). The idea of co-ordination remained a central theme in Dewey's work, as can be seen from book titles such as *The School and Society* (1899), *The Child and the Curriculum* (1902), *Democracy and Education* (1916), and *Experience and Education* (1938). The appearance of the word 'and' in the title of many of Dewey's books signifies that he was wary of one-sided thinking that would put the emphasis either on the school *or* on society, either on the child *or* on the curriculum, either on experience *or* on education, and so on. This already reveals that a common characterisation of Dewey's position as being a child-centred conception of education clearly misrepresents his ideas. Elsewhere (Biesta 2006) I have suggested to refer to Dewey's position as a *communication-centred* view of education, arguing that what matters for Dewey is the connection, that which happens 'in between' – or with a more technical term he introduced towards the end of his career: *transaction* (Dewey & Bentley 1949; see also Biesta & Burbules 2003). For Dewey education is neither about getting the curriculum into the child, nor about the child just doing anything, but about establishing a productive and meaningful connection between the two.

From the angle of pedagogy this idea makes sense, as pedagogy operates precisely in the middle ground between the child and the curriculum. The point of pedagogy, after all, is not to make sure that children learn but that they learn *something* (see also Biesta 2010a). That is why pedagogy should indeed be focused on the co-ordination between the child and the curriculum. But whereas the idea of co-ordination makes sense from the point of view of pedagogy – that is from the point of view of the *process* of education – it becomes more problematic from the point of view of the *content* of education. How much leeway, so we might ask, should there be for the child to creatively interpret and appropriate the curriculum? Isn't the very point of education that children not just 'get' the curriculum but that they get it 'right'? And doesn't that imply that while there is an obvious need for the co-ordination of the individual and the social factors, ultimately this co-ordination is strongly biased – and has to be strongly biased – towards the curriculum end of the spectrum?

Let's begin by saying that the answer to these questions has to be that it depends. It first of all depends on what one expects from education. Education is, after all, not just a ‘machine’ for the transmission of knowledge and skills (the domain of qualification), but is involved in wider ambitions, such as the introduction of children into existing traditions and practices (the domain of socialisation), and questions concerning the formation of the person (what elsewhere I have termed ‘subjectification’ – see Biesta 2010a). While one may argue that to the extent to which education is focused on the transmission of knowledge and skills there is an important need for getting it 'right,' to the extent to which education is focused on the formation of the person and on questions of agency and freedom, the idea of getting it 'right' becomes far less meaningful. We also shouldn't forget that 'the curriculum' is itself a multifaceted phenomenon. The requirements for a curriculum for learning mathematics are, after all, quite different from curricula concerned with, for example, car mechanics, aviation, brain surgery, beauty therapy, citizenship, critical thinking, and so on. It is also important not to think of these as entirely separate areas. While there may be an argument for 'getting it right' in a subject like geography, we should also want students to develop a critical understanding of the field, which requires that such a curriculum should always be orientated towards more than just 'getting it right' in the sense of 'getting the facts right.' Similarly, for many practical areas one could argue that the point is not simply to acquire the right skills, but also to develop the capacity for critical judgement in relation to them – and this is as important for the brain surgeon and the Airbus pilot as it is for the beauty therapist and the car mechanic.

I consider these preliminary remarks quite important for the discussion about knowledge and the curriculum, as they can help us to keep the discussion 'grounded' and focused, and prevent us from making the mistake that we can talk about 'curriculum' and 'knowledge' just in an abstract sense, disconnected from where particular issues arise and problems emerge. This is not to suggest that the discussion is entirely specific and particular, but the challenge is to ask the right questions and identify the real issues. With respect to the question of knowledge this is quite difficult, not in the least because the discussion about knowledge and the curriculum is highly politicised, both from the angle of policy and practice – which, itself, is connected to wider public debates about what education is for – and from the angle of research.

**The politics of knowledge**

One way to map the increased politicisation of the discussion is by tracing the development from the year 1854 when Herbert Spencer argued that the "question of all questions" for the development of a "rational curriculum" had to be "What knowledge is of most worth?" (Spencer 1909) – to which, by the way, his answer was "science" – to the 1980s when Michael Apple rephrased Spencer's question as "*Whose* knowledge is of most worth?" (see, for example, Apple 1986; 1991).[[3]](#footnote-3) Apple thus articulated a *sociological* perspective on knowledge and the curriculum which suggested that, at least from an analytical perspective – that is, from the angle of trying to understand why the curriculum is what it is and does what it does – we should not be asking philosophical questions about the 'intrinsic qualities' of knowledge but should shift to sociological questions that focus on the 'extrinsic connections' of the curriculum. This, as said, was partly meant to understand the curriculum and its workings – and in this regard it was supported by historical studies of the curriculum that had a similar outlook (for example Kliebard 1987) – although it was informed by the wider ambition that the sociological exposure of the workings of power could open up opportunities for different knowledges and different constituencies to populate the curriculum, and thus benefit from its power. In North America this almost seamlessly fed into much bigger 'culture wars' that led to the hyper-politicisation of discussions about culture, knowledge, and the curriculum – discussions that are still very much part of the political landscape today. In Britain, not surprisingly, the discussion about knowledge and the curriculum mapped far less onto race, gender and religion – to name a number of the key 'markers' of the 'culture wars' – but focused much more on class (see, for example, Bernstein 1971).

The way in which the discussion about knowledge and the curriculum has developed, leads to a predicament, if not a paradox. In terms of truth – I will return to the question of knowledge and the relationship between knowledge and truth later – we could say that we find, on the one hand, those who claim the truth for their particular views (and this includes both Spencer and his followers and those who take a particular position within the 'culture wars'), while, on the other hand, the sociology of the curriculum relativises these truth claims by arguing that they all speak from a particular position and all articulate a particular interest. The predicament is that in doing so the sociology of the curriculum expresses a truth claim as well – roughly 'all knowledge is social' or 'all knowledge is relative to social position' or 'all knowledge is socially constructed' – and thus ends up doing the very thing it tries to criticise. This indicates that the favourite strategy of the left – that of speaking truth to power – may not be as easy to deliver as is sometimes assumed. This was the point made by Foucault when he introduce the idea of 'power/knowledge' which, unlike what some of his readers seem to assume, was not to make the sociological point that power is everywhere, but rather to highlight that power and knowledge always come together so that they can no longer speak to each other, so to speak. For Foucault this did not imply the end of Enlightenment, but only the end of a particular (modern) strategy to achieve enlightenment, one based on the alleged separation of knowledge and power (see Foucault 1984).

**Beyond objectivism and relativism: Insights from pragmatism**

I have spent a considerable amount of words trying to outline some of the issues that are at stake in the discussion about knowledge and the curriculum, so that we do not too quickly start with formulating another answer or articulating another position, but rather try to start from a good enough sense of the problems we are trying to address. Having done so, however, leaves us perhaps a bit empty-handed, as it is not immediately obvious where we can go next. While the sociology of the curriculum has generated important insights about curricular knowledge, it cannot act as the ultimate arbiter on questions of knowledge. The main unease when everything becomes sociologised and when everything is seen as a social construction is that the idea of knowledge itself begins to disappear, so that we end up with a universe full of opinions (δόξα) but without any truth (ἐπιστήμη). But I also do not think that we can any longer just turn to philosophy – and more specifically to this subfield of philosophy called epistemology – for an answer, as the idea that philosophy can provide us with a deeper truth about what it means to know and what it means to have knowledge, has also reached its limits. Does that mean, then, that we are forever doomed to be bounced back and forth between truth and its impossibility, between objectivism and relativism, between realism and anti-realism, between truths and perspectives, between the one and the many?

This, I think, doesn't make sense at an intuitive level either. There are, after all, situations in which the distinction between truth and falsehood can be quite easily made. There are instances where truth has indeed spoken effectively against power or has been mobilised effectively to do so (here I am thinking, for example, of the South African Truth and Reconciliation Commission). Also, realism at least seems to be an attractive assumption for leading our everyday lives. While we know that both the social and the natural world are amenable to a wide range of different interpretations, we also know that not any interpretation makes sense. And we know that, how much we may wish it to be the case, not everything that we want the world to be or to do is actually possible. We have a lot of technology that seems to be working perfectly well, which seems to give at least some credence to the scientific insights upon which it is supposed to be based – my phrasing is careful here, because there is a question whether technology is indeed *based* upon knowledge and whether the success of technology *proves* anything about the knowledge involved (for more on this see Biesta 2011). And as educators we should have the ambition to engage in a meaningful and intelligent way with these intuitions in our educational practices.

Could it be, perhaps, that the reason for the clash between our theoretical discussions on the one hand and our everyday intuitions on the other may not so much be the result of us having the wrong answers, but follows from the fact that we may have been asking the wrong questions? And could it perhaps be the case that we have been asking the wrong questions because some of the assumptions from which our questions stem themselves need revision? This is where we should turn to pragmatism – and more specifically the work of John Dewey – because this is precisely the point Dewey has been making throughout his career, that is, that the problem with so many discussions about knowledge is that they articulate different positions within the same set of assumptions rather than trying to break away from those assumptions in order to ask different questions and thus have the prospect of different and perhaps better answers. While I do not have the space to deal with the full detail of Dewey's work,[[4]](#footnote-4) I wish to offer some insights from Dewey’s pragmatism in order to show why I think that his ideas (still) matter for contemporary discussions about knowledge and the curriculum. I will present Dewey's ideas in three steps. I will first say a few things about modern epistemology and what I will refer to as the ‘mind-world scheme.’ I will then give a reconstruction of Dewey's transactional theory of knowing. In the third step I will outline some implications of Dewey's views, before I return to the wider discussion about knowledge and the curriculum.

**Modern epistemology and the ‘mind-world scheme’**

In modern epistemology the question of knowledge is often phrased as the question how the human mind can acquire knowledge of a world outside of itself. Robert Nozick put the challenge most succinctly when he asked whether we can ever know that we are *not* a brain suspended in a vat full of liquid, wired to a computer which is feeding our current experiences (see Nozick 1981, pp.161-171). Nozick is part of a long tradition in which the nature of knowledge is examined from a *skeptical* point of view, that is by starting from the assumption that knowledge may *not* be possible because we may not be able to get ‘outside’ of our own mind. The first philosopher to place skepticism at the heart of modern epistemology was René Descartes. In the *Second Meditation* he used the ‘method of doubt’ to arrive at the conclusion that although we can doubt everything, we cannot, when doing so, doubt that we are engaged in a process of doubting. Whereas this provided Descartes with certainty about the existence of the thinking self, it did *not* provide any certainty about the existence of a world *beyond* our experience, and this issue has troubled modern epistemology ever since. It eventually led David Hume to the conclusion that the existence of an external world of enduring object is a ‘very useful hypothesis,’ but not something that can ever be proven.

What unites the ideas of Nozick, Descartes and Hume is their reliance on a dualistic view of reality. They assume that reality consists of two totally different ‘substances,’ mind and matter, and that the question of knowledge has to begin with the mind in order then to ask how the mind can get in touch with the material world ‘outside’ of itself. The dualism between mind and matter has not only set the agenda for modern epistemology by giving it the task to answer the question how the mind can get 'in touch' with the world (see, e.g., Dancy 1985) – which is one reason why epistemology cannot be a neutral arbiter in discussions about knowledge, as it is itself 'tainted' by very specific assumptions. The dualism between mind and matter has also provided the framework for the distinction between objectivity and subjectivity and, related to this, for distinctions such as between absolutism and relativism, between realism and idealism, etcetera. After all, on the basis of the dualism between knowing subjects and objects to be known, knowledge can be objective if it depicts how objects are in themselves, whereas, if this is considered not to be possible, then the only other option is for knowledge to be subjective, i.e., produced by the activities of the human mind.

The implications of this way of thinking go well beyond ‘technical’ questions about knowledge. Many recent discussions about culture, ethics, morality, science, rationality and even Western civilization appear to be informed by the idea that the only choice we have is between the two options presented through the ‘mind-world scheme.’ More importantly, many participants in these discussions seem to fear that if we give up objectivity, the only thing left is chaos. Richard Bernstein (1983, p.18) aptly refers to this as the ‘Cartesian Anxiety,’ the idea that *either* there is “a fixed foundation for our knowledge” *or* we cannot escape “the forces of darkness that envelop us with madness, with intellectual and moral chaos.”

The mind-world scheme does indeed only offer two options: objectivity or subjectivity. The crucial question, however, is not which option to choose. The far more important question is whether the mind-world scheme is itself inevitable or whether it is possible to think about knowledge and reality in a different way, starting from different assumptions. John Dewey’s theory of knowing does precisely this. It offers an understanding of knowing that does *not* start from what he saw as the “impossible question” as to how "a knower who is purely individual or 'subjective,' and whose being is wholly psychical and immaterial ... and a world to be known which is purely universal or 'objective,' and whose being is wholly mechanical and physical" can ever reach each other (Dewey 1911, p.441). Instead, Dewey put forward a framework which starts with *interactions* – or as he later preferred to call it: *transactions* – taking place in nature and in which nature itself is understood as “a moving whole of interacting parts” (Dewey 1929, p.232). This is Dewey’s self-confessed ‘Copernican turn,’ in which “(t)he old center was mind” while “(t)he new center is indefinite interactions” (Dewey 1929, p.232). The key concept in this Copernican turn is ‘experience.’

**The transactional theory of knowing**

While *transaction* refers to interactions taking place in nature more generally, *experience* refers to the transactions of *living* organisms and their environments. What is distinctive about these transactions is that they constitute a *double* relationship.

 The organism acts in accordance with its own structure, simple or complex, upon its surroundings. As a consequence the changes produced in the environment react upon the organism and its activities. The living creature undergoes, suffers, the consequences of its own behavior. This close connection between doing and suffering or undergoing forms what we call experience.(Dewey 1920, p.129)

Experience is therefore the way in which living organisms are implicated in their environment. Contrary to what is suggested in the mind-world scheme, Dewey thus argues that experience is not “a veil that shuts man off from nature,” but rather “a means of penetrating continually further into the heart of nature” (Dewey 1925, p.15).

Dewey saw knowing as the mode of experience that in some way ‘supports’ action. It is concerned with grasping the *relationship* between our actions and their consequences. It is because of this that knowing can help us to get more control over our actions, at least more than in the case of blind trial and error. It is important to see that ‘control’ here does not mean complete mastery, but the ability to intelligently plan and direct our actions. This ability is first of all important in those situations in which we are not sure how to act – which is expressed in one of Dewey's definitions of knowing as having to do with “the transformation of disturbed and unsettled situations into those more controlled and more significant” (Dewey 1929, p.236). Knowing is also important in order to achieve more control, a more intelligent approach in the other domains of experience, which is expressed in Dewey’s claim that knowing “facilitates control of objects for purposes of non-cognitive experience” (Dewey 1929, p.79).

The framework for Dewey’s theory of knowing lies in his theory of action, the outlines of which he developed early on in his career in a landmark paper called “The Reflex Arc Concept in Psychology” (Dewey 1896). One way to summarize Dewey's theory of action is to say that it amounts to *a theory of experimental learning* if, that is, we think of learning as the way in which living organisms interactively ‘adapt’ to their environments (which in itself is a rather truncated conception of learning, of course)*.* Dewey characterises living organisms – including human organisms – as capable of establishing and maintaining a dynamic coordination with their environment. Through this process the predispositions – or ‘habits’ as Dewey preferred to call them – of the organism become more focused and more specific, more attuned to ever-changing environing conditions, which is another way of saying that through the tentative, experimental way in which living organisms maintain coordinated transaction with their environment they *learn*. This learning, however, is *not* the acquisition of information about how the world ‘out there’ is. It is a learning process through which living organisms acquire a complex and flexible set of predispositions-for-action.

On this view, learning is therefore basically a process of trial and error and in one sense this is indeed how Dewey argues that living organisms learn. But there is a difference between blind trial and error and what Dewey called ‘intelligent action.’ The difference has to do with the intervention of thinking: “dramatic rehearsal (in imagination) of various competing possible lines of action” (Dewey 1922, p.132). The choice for a specific line of action should be understood as “hitting in imagination upon an object which furnishes an adequate stimulus to the recovery of overt action” (Dewey 1922, p.134). Whether this choice will actually lead to coordinated transaction will only become clear when the organism actually acts. This is why thinking can never guarantee that our actions will result in coordinated transactions. But what it can do is make the process of choosing more intelligent than would be the case with “blind” trial-and-error.

In Dewey’s view the question of knowledge – or to be more precise: the issue of knowing – arises “because of the appearance of incompatible factors within the empirical situation. (...) Then opposed responses are provoked which cannot be taken simultaneously in overt action, and which accordingly can be dealt with, whether simultaneously or successively, only after they have been brought into a plan of organized action. (Dewey 1916, p.326) The problem here is one of the *meaning* of the situation – and for Dewey ‘situation’ refers to organism and environment in transaction. The only way to solve the problem in an *intelligent* manner and not by simple trial-and-error is by means of a systematic inspection of the situation. On the one hand we need to identify and state the problem. On the other hand we need to develop suggestions for addressing the problem, for finding a way to act, and hence to find out what the meaning of the situation actually is. While thought or reflection must play an important part in this process, they will, in themselves, not result in knowledge. It is only when action follows that the value of both the analysis of the problem and the suggested solution can be established. For Dewey, therefore, we need overt action in order to determine the worth and validity of our reflective considerations. Otherwise we have, at most, a hypothesis about the problem and a hypothesis about its possible solution.

This means that in order to get knowledge we need action. But although action is a necessary condition for knowledge, it is not a sufficient one. We also need thinking or reflection. It is the *combination* of reflection and action which leads to knowledge. From this it follows that knowing, the acquisition of knowledge, is not something which takes place somewhere deep down inside the human mind. Knowing is itself an activity, it is “literally something which we do” (Dewey 1916, p.367). The meaning which emerges from the restoration of coordinated action is a meaning “which is contemporaneously aware of meaning something beyond itself” (Dewey 1906, p.113). This ‘beyond’ is not simply present or will not simply become present in the future. It will *only* become present “through the intervention of an operation” (Dewey 1906, pp.113-114), that is, through what we *do*. When experience is ‘cognitional,’ as Dewey puts it, it means that we perceive something as meaning-something-else-which-we-will-experience-when-we-act-in-a-specific-way. It is along these lines that knowledge is intimately connected to the possibility of control. “In knowledge,” Dewey argued, “causes become means and effects become consequences, and thereby things having meaning” (Dewey 1929, p.236). Knowledge has, in other words, to do with *inference*: a reaction to something which is distant in time or place. Because inference is a step into an unknown future, it is a precarious journey. Inference always involves uncertainty and risk. A stone, Dewey argued, can only react to stimuli of the present, not of the future, and for that reason cannot make mistakes. Since inference entails the possibility of mistake, it introduces truth and falsity into the world.

**Experience, reality and knowledge**

One important implication of Dewey’s transactional definition of experience is that it puts an end to the idea that it is only through knowledge that we can obtain a hold on reality. For Dewey all modes of experience are equally real, since they are all modes of the transaction of living organisms and their environments. From this Dewey concluded that “things – anything, everything, in the ordinary or non-technical use of the term 'thing' – are what they are experienced as” (Dewey 1905, p.158). This first of all means that everyone’s experience is equally real. It also implies that what is experienced is itself real. If someone is flustered by a noise, then that noise *is* fearsome. This claim must be understood transactionally. If someone is frightened by a sound, then the fear is the immediate response of the organism. The sound *is* frightening because the organism reacts to the sound as being-a-frightening-sound. This implies, however, that *being*-frightened is not the same as knowing-that-one-is-frightened. Knowing what *caused* the fearsome noise is a different experience. While the latter experience may be *more true* than the former, it is in Dewey’s view not more *real. “*The question of truth is not as to whether Being or Non-Being, Reality or mere Appearance is experienced, but as to the *worth* of a certain concretely experienced thing.” (Dewey 1905, p.163). One important implication of this is that experience in itself does not provide us with any knowledge. Dewey rejected, in other words, the view that experience provides us with elementary ‘bits’ of knowledge which, when put together in a systematic of logical manner, result in knowledge.[[5]](#footnote-5)

For Dewey the difference between experience and knowledge is that knowledge is concerned with the *occurrence* of experience. The ‘office’ of knowledge signifies a search “for those relations upon which the *occurrence* of real qualities and values depends” (Dewey 1929, p.83). In this respect knowledge is intimately and necessarily connected with action, because – and this is the most crucial point in Dewey’s theory of knowing – the discovery of the conditions and consequences of experience “can take place *only* by modifying the given qualities in such ways that *relations* become manifest” (Dewey 1929, p.84; emphasis added). The shift from understanding knowledge as being concerned with the world ‘as it is’ to understanding knowledge as being concerned with *conditions and consequences*, is a very important element of Dewey's approach. It represents a shift from a concern with things as they are to a concern with “the history to which a given thing belongs” (Dewey 1925, p.243). It is a shift from “knowing as an aesthetic enjoyment of the properties of nature as a world of divine art, to knowing as a means of secular control – that is, a method of purposefully introducing changes which will alter the direction of the course of events” (Dewey 1929, p.81). This implies that for Dewey knowledge is concerned with the relations between actions and consequences. This introduces the dimension of *time* into Dewey’s theory of knowing – a reason for arguing that Dewey has a temporal conception of knowing.

Dewey’s approach also has implications for how we understand the objects of knowledge. Whereas in the dualistic approach the objects of knowledge are seen as ‘things’ that exist in a world ‘out there’ and are there for us to discover and depict, Dewey’s transactional view sees the objects of knowledge as the *outcomes* of processes of inquiry. Since the habits we acquire through such processes provide us with more specific predispositions for action, habits in a sense embody the ways in which our environment becomes more meaningful for us. The experimental transformation of organism-environment transactions transforms the environment in which and through which we act into what Dewey referred to as “a figured framework of objects” (Dewey 1922, p.128). This is the reason why Dewey referred to objects of perception not as things but as “events with meaning” (Dewey 1925, p.240). In the case of spoken language it is relatively easy to see that words – or ‘sound-events’ do not have a meaning of their own, but that they have *become* meaningful over time. It is far more difficult to draw the same conclusion with respect to physical objects, such as chairs, tables, trees, stones, hills and flowers, “where it seems as if the union of intellectual meaning with physical fact were aboriginal” (Dewey 1933, p.231). Yet chairs and tables are as much events with meaning as words are. And their meaning has a strictly transactional origin, in that it has to be understood as the outcome of the specific ways in which successful relationship between our actions and their consequences have been established over time. It is not, therefore, that through a process of inquiry we can find out what the possible meanings of, for example, a chair are. Rather, a chair specifies a particular way in which the transaction with the environment has become meaningful. It is for this reason that Dewey argued that we should think of objects as tools. “The character of an object is like that of a tool (...); it is an order of determination of sequential changes terminating in a foreseen consequence.” (Dewey 1925, p.121)[[6]](#footnote-6)

The final element of Dewey's theory of knowing has to do with the question of truth. We have already seen that for Dewey there is no sense in asking about the truth of our immediate experience. Immediate experience simply is what it is. Truth and falsity only enter the scene when we raise questions about the *meaning* of experience. “Truth and falsity are not properties of any experience or thing, in and of itself or in its first intention; *but of things where the problem of assurance consciously enters in. Truth and falsity present themselves as significant facts only in situations in which specific meanings are intentionally compared and contrasted with reference to the question of worth, as to the reliability of meaning.*” (Dewey 1906, p.118; emphasis in original) Truth and falsity are therefore not concerned with things as such, but with the *relationship* between our experience of a thing on the one hand and our possible actions or responses on the other. This not only means that ‘truth’ is always contextual and related to action. It also means that truth is itself *temporal*. Truth does not refer to an alleged correspondence between a proposition and reality. It has to do with the correspondence between *suggested* meaning and *realized* meaning, that is, meaning ‘put into practice.’ “The agreement, correspondence, is between purpose, plan, and its own execution, fulfillment.”(Dewey 1907, p.84)

This does not mean that truth becomes disconnected from reality. The contrary is the case, not only because of the transactional framework that informs Dewey’s theory of knowing, but also because of the *indispensable* role of action in the process that results in knowledge. The upshot of this is that that knowledge is not a passive registration of reality ‘out there.’ Our intervention, our action, is a crucial, necessary and constitutive part of knowledge. In this sense we can say that knowledge is always a human construction just as the objects of knowledge are. But it does *not* mean that anything is possible. We always intervene in an existing course of events and although our intervention introduces change, it will always be change of an existing course of events. We cannot create out of nothing. For Dewey the only possible construction is a *re*construction.

**Consequences of pragmatism**

One of the most important implications of Dewey’s transactional approach is that knowledge does *not* provide us with a picture of reality as it is in itself – an idea to which Dewey referred as the ‘spectator theory of knowledge.’ For Dewey knowledge always concerns the *relationship* between (our) actions and (their) consequences. This, in essence, is what a transactional conception of knowledge implies. It means that knowledge is a construction; or, to be more precise, that the objects of knowledge are constructions. But contrary to how constructivism is often understood under the mind-world scheme (viz., as purely mental and hence subjective), Dewey’s constructivism is a *transactional* constructivism, a constructivism which holds that knowledge is at the very same time constructed *and* real. This is why we can call Dewey’s position a form of realism, albeit *transactional realism* (Sleeper 1986).

Given that knowledge concerns the relationship between (our) actions and (their) consequences, knowledge will only ever offer us *possibilities* but not certainty. The conclusions we draw on the basis of careful observation of what follows from how we act upon the world, show what has been possible in this particular transactional situation. Sometimes what was possible in one situation turns out also to be possible in another situation; but in other situations the transactional determinants of the situation are different, so that what was possible in one case is no longer possible in another case (see also Biesta 2007 on the implications of this idea for the discussion about ‘what works’). This is why Dewey preferred to refer to the outcomes of inquiry and research as ‘warranted assertions’ rather than truth. The assertions we make about the consequences of our actions are warranted on the basis of careful observation and control. But they are only warranted in relation to the particular situation in which they were ‘produced’ and we shouldn’t make the mistake – for example by putting the label ‘true’ on them – to think that they will be warranted for all time and all similar situations. This does not mean that conclusions from one situation cannot be useful for other situations. But the way in which knowledge from one situation transfers to another situation is in that it can guide our observation and perception and can suggest possible ways for resolving problems, for finding ways forward. Whether these possibilities will address the specific problems in the specific, new transactional situation can only be discovered when we act.

A more general feature of Dewey’s transactional approach to knowing is that, contrary to mainstream modern philosophy, his approach is not a skeptical one. For Dewey there is no gap between human beings and the world. This does not mean that everything we experience is simply ‘true.’ While Dewey does hold that things are what they are experienced as, there is a crucial difference between experience and knowledge. While experience simply ‘is,’ knowledge, because it has to do with inference, can always be fallible. In this respect we have to conclude that Dewey’s transactional theory of knowing is a form of fallibilism. But it is important to see that for Dewey knowledge is *not* fallible because of an alleged gap between ourselves and the world, but because we can never be sure what the future will bring, not in the least because what the future will look like depends also on our own ongoing actions. According to the transactional approach, we are not spectators of a finished universe, but participants in an ever-evolving, unfinished universe.

Dewey’s transactional approach also cuts across the either/or of objectivism and subjectivism. From a transactional point of view, ‘the world’ always appears as a function of what we do. Objectivity, understood as a depiction of a world completely independent from and untouched by us, is therefore simply impossible. If we want to know the world, we *must* interact and, as a result, we will only know the world in the way in which it responds to us. The world we construct emerges out of the doing-undergoing-doing dynamics of what Dewey calls ‘experience.’ One could argue – and many critics of Dewey had done so – that although Dewey rejects objectivism, he thus ends up in a situation of complete subjectivism. Dewey simply acknowledges that this is the case – but he adds that there is no problem with this at all, as long as we see that the worlds we construct are constructed for our own individual purposes, for our own attempts to address the problems we are faced with. It is only when we start to interact with others that the need for some form of coordination of our subjective worlds with the subjective worlds of others arises. What happens in this case is that, through interaction, co-operation, coordination and communication we construct an *intersubjective* world out of our individual, subjective worlds. By showing that objectivity is simply not possible, that subjectivity is not always a problem, and that intersubjectivity addresses those instances where the subjectivity of knowledge does become a problem, Dewey not only presents us with a position that helps us to overcome the stalemate between objectivism and subjectivism. He also hints at a way in which we can overcome the Cartesian Anxiety by showing that we do not have to give up the world when we want to acknowledge that knowledge is always plural, changing and open, and that knowing, most importantly, is always a thoroughly *human* endeavour.

**Discussion: Pedagogy, knowledge, curriculum and co-ordination**

So what has Dewey to contribute to the discussion about knowledge and the curriculum? One thing that is attractive about Dewey's views is that they can make sense of many of the intuitions we hold about knowledge and the world. Rather than creating an opposition between what philosophy tells us and what we seem to be experiencing in our everyday lives, Dewey's ideas are able to capture many of these experiences. Dewey is able to account for the possibility of making a distinction between truth and falsehood; he helps us to see that realism is a reasonable assumption; he can account for the openness of interpretation while at the same time acknowledging that not anything goes; and his transactional approach can also make sense of the advances in technology (see also Hickman 1990). Perhaps Dewey even opens up some possibilities for the idea that we can sometimes indeed speak truth to power.

What is different and distinctive about Dewey's approach, however, is that he does not start from the dualistic assumption of mind *versus* world, but urges us to start from somewhere else and, in doing so, to question and overcome the founding assumptions of modern philosophy rather than positioning ourselves within this framework. In this regard Dewey does indeed manage to go *beyond* objectivism and relativism, to use the title of Richard Bernstein's 1983 book (Bernstein 1983) – and the word 'beyond' is of course of tremendous significance here.

This, as I have tried to make clear, has a number of very important implications for the discussion about knowledge, experience and reality. It means the end of the idea of knowledge as a picture of reality and instead puts forward the suggestion that our knowledge is always about *relationships* between actions and consequences. While this does mean that knowledge is a construction, it is not a construction happening somewhere in our head, but a construction 'in transaction,' which means that knowledge is both constructed *and* real. From this angle the question of truth ceases to be a spatial matter – that is of the relationship between statements about the world and the world itself – and instead becomes thoroughly temporal – that is, concerned with the relationship between actions and their consequences. Knowledge thus moves from the domain of certainty, the domain of 'what is,' to the domain of possibility, the domain of 'what might be the case.'

These observations are, however, still relatively abstract. So what kind of difference would these ideas make if we take a (slightly) more concrete issue concerning knowledge and the curriculum. Let’s briefly look at a rather extreme example, that of the question of Creationism versus Darwinism. The quick way of addressing this issue is to say that from a Deweyan perspective both Creationism and Darwinism move from the sphere of *certainty* to the sphere of *possibility*, and the most important point to make here is that they express *different* possibilities which have meaning in relation to different human endeavours and different human concerns. The question which one is true is, from that angle, no longer a relevant question to ask, at least not in the abstract or representational sense of truth. The question rather is what Creationism and Darwinism allow us to do in relation to specific human endeavours, and it is only within the confines of that particular question that the issue of truth may be meaningful – not, however, to compare Creationism and Darwinism against some abstract external standard like 'the world out there', but to raise questions about what can be asserted with warrant in relation to always specific endeavours. To say that Creationism and Darwinism have to be understood in terms of possibility rather than certainty and that these question always have to be raised in relation to specific matters of concern, is not to say that everything is relative, that there is only opinion and taste, and that judgement is no longer possible. The point rather is that our judgements need to be thoroughly pragmatised, that is, they always need to be made in relation to *specific* matters of concern and in relation to *specific* aims and ends. After all, the most important question to ask from the point of view of pragmatism is not 'What is true?' but 'What is the problem?'

While this opens up new, and in my opinion exciting opportunities for engaging with questions of knowledge and the curriculum, there is one more technical point that I briefly wish to mention (for more on this see Biesta 2009b; 2011). The point is that in the first section of this paper I have argued that neither the sociology of knowledge nor the philosophy of knowledge can act as a neutral arbiter in discussions about knowledge and the curriculum. It now may seem that by introducing Dewey into the discussion I am trying to do the very thing that I argued earlier to be impossible, that is, presenting Dewey's ideas as a kind of 'über-truth' or meta-narrative that can settle all our problems once and for all. That is not what I am trying to do here – although I am aware that this problem can be a real one (see Biesta 2009b). One way to address this issue is to make sure that we approach Dewey's own work pragmatically, which means that we should not see it as a new truth about the universe and everything in it, but rather as an attempt to address a very specific problem (see also Biesta 2010d).

The problem Dewey ultimately sought to address had to do with the impact of modern science on what he referred to as the world of 'common sense (see Dewey 1939). While Dewey was happy to acknowledge the advances of modern science and technology, he was concerned about the way in which the scientific worldview was colonising alternative understandings and, more specifically, was also colonising alternative rationalities. Dewey was concerned, in other words, about the way in which the worldview of modern science had become hegemonic, not only in terms of what we hold to be true, but also in terms of what we hold to be rational. Dewey's project, so we might say, was therefore one that aimed to overcome the hegemony of modern science, not in an attempt to deny its achievements, but to reject the idea that it is only science that provides us with access to reality as it really is and that it therefore is only science that can provide us with a standard of what is reasonable or rational (see Biesta & Burbules 2003).

For Dewey the nub of the problem had to do with the fact that modern science had been interpreted through philosophical categories that predated modern science – such as the idea of truth as having to do with what is permanent and fixed and of knowledge as having to do with an unchanging reality 'out there.' Dewey's project, in a sense, was to explore what would happen if, rather than to interpret modern science through pre-scientific philosophical categories, we would interpret science and its claims to knowledge in its own terms. And the outcome of that exercise, as we have seen, is precisely that science can no longer claim to be the possessor of ultimate truth and ultimate rationality. While, at a superficial level, Dewey's work might seem to be singing the praises of modern science, it actually amounts to one of the most fundamental and strategically effective criticisms of the impact of the scientific worldview on modern society. While there is, of course, much more to say about this, it is important to bear this in mind in order not to assume that Dewey is just trying to present us with another 'philosophy to end all philosophies.'

What then, does all this mean for the discussion with which I started this paper, that is, the question of pedagogy, the idea of co-ordination, and the question what knowledge and the curriculum have to do in relation to this? Let me make two points here. The first is that if we follow Dewey we have to shift our understanding of knowledge and the curriculum from the domain of certainty to the domain of the possible. This has to do be done in a very careful and very precise way, one that proceeds pragmatically – that is, always in relation to matters of human concern – and not relativistically – which would be by suggesting that anything goes, which it obviously does not. The second point concerns the idea of co-ordination. What I have tried to make clear in my reconstruction of Dewey's theory of knowing is that co-ordination is the absolutely central and fundamental process through which we turn our subjective worlds into an intersubjective world (which in itself will always be a plural, overlapping, and conflictual world) – a world, in Dewey’s language, communicated and shared. Schools are, of course, not the only place where such co-ordination happens or should happen, but they are definitely not insignificant. That is why the idea of co-ordination is important, not only in terms of process – that is, pedagogy – but precisely also in terms of curricular content and educational achievement, and it is precisely there that matters of pedagogy and matters of curriculum connect.

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1. Within the confines of this paper I wish to focus on what pragmatism – and more specifically John Dewey's pragmatism – may have to offer for the discussion about knowledge and the curriculum. A more detailed discussion of Young's argument and the differences between the form of social realist philosophy he favours and the transactional realism of Dewey is beyond the scope of this paper. [↑](#footnote-ref-1)
2. The actual formulation in the *Plan of Organization of the University Primary School* is: "The ultimate problem of all education is to co-ordinate the psychological and the social factors." (Dewey 1895, p. 224) [↑](#footnote-ref-2)
3. This is not to suggest that he was the first to do so; see for example Young (1971). [↑](#footnote-ref-3)
4. For this I refer the reader to Biesta & Burbules 2003; Biesta 2009a; 2009b; 2010c. [↑](#footnote-ref-4)
5. The latter view was the one put forward by logical positivism and, although philosophically discredited, still lives on in the idea that knowledge acquisition is an inductive process starting from the collection of ‘basic facts’ and working ‘upwards’ towards general statements (see Ayer 1959; Achinstein & Barker 1969). [↑](#footnote-ref-5)
6. Dewey’s approach is sometimes characterized as instrumentalism, also by Dewey himself. Whereas instrumentalism is generally taken as the view that *theories* are instruments or tools, Dewey’s instrumentalism is about the instrumental character of objects-of-knowledge. [↑](#footnote-ref-6)